

## **Typhoid Fever**

### **What is typhoid fever?**

Typhoid fever is a disease that is caused by the bacteria *Salmonella* Typhi. This illness is common in many countries of the world. Most cases diagnosed in the U.S. are acquired during travel to other countries. Typhoid fever should not be confused with the usually milder illness (salmonellosis) caused by *Salmonella* Typhimurium.

### **Who gets typhoid fever?**

Anyone can get typhoid fever but it occurs more often in people arriving from developing countries where the disease is common. Vaccination reduces the risk of infection.

### **How is typhoid fever spread?**

Most people get typhoid fever by eating or drinking food or water that has been contaminated by people with the disease, including by those who do not have any symptoms. Raw fruits and vegetables, milk, and shellfish are the types of foods most often associated with illness. Person-to-person spread can also occur.

### **What are the symptoms of typhoid fever?**

Some people who are infected do not develop illness. Others may develop fever, headache, weakness, and loss of appetite. Constipation or diarrhea may occur; stomach cramps may mimic appendicitis. Some people get “rose spots” on the trunk of the body. Symptoms may be mild, but typhoid fever can be life-threatening, especially if untreated.

### **How soon after exposure do symptoms appear?**

The symptoms may appear from three days to 60 days after exposure, with a usual range of 8-14 days.

### **How long can an infected person spread this disease?**

The disease may be spread to others as long as the bacteria remain in the infected person’s stool. Some people with typhoid fever may carry the bacteria for weeks to years. Approximately 10% of untreated typhoid fever patients excrete bacteria for three months after the onset of symptoms. About 2-5% become permanent carriers. Carriers are persons who are not ill from the disease but may spread it to others.

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## **How is typhoid fever diagnosed?**

Laboratory testing of feces (stool) is the most common way to diagnose typhoid fever. The bacteria may also be identified in blood and other body fluids.

## **Do infected people need to be excluded from work or school?**

Most people may return to work or school after they recover from the disease, as long as they carefully wash their hands after using the toilet. The health department needs to assess situations where someone with typhoid fever could spread the illness (e.g., foodhandler, healthcare worker, daycare worker or attendee). These people should not return to these settings until they have multiple negative tests for the bacteria and the health department approves their return to usual activities.

## **What is the treatment for typhoid fever?**

Antibiotics and supportive care are used to treat typhoid fever.

## **How can typhoid fever be prevented?**

Spread of typhoid fever can be prevented by careful hand washing after each toilet visit and before preparing and/or eating food. Persons who live in the house or have other close contact with a person who has typhoid fever need to be tested for the disease and may not work in food handling until they have multiple negative tests. A vaccine is available that provides some protection for persons traveling to areas where the disease is common. Even if they are vaccinated, persons traveling to these areas still need to be careful about what food and water are consumed.

## **How can I get more information about typhoid fever?**

- 1) If you have concerns about typhoid fever, contact your healthcare provider.
- 2) Call your local health department. A directory of local health departments is located at <http://www.vdh.virginia.gov/LHD/index.htm>.
- 3) Visit the Centers for Disease Control and Prevention website at [http://www.cdc.gov/nczved/divisions/dfbmd/diseases/typhoid\\_fever/](http://www.cdc.gov/nczved/divisions/dfbmd/diseases/typhoid_fever/).